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STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL

REGULATIONS GOVERNING  
THE CONTROL OF WATER POLLUTION

ADOPTED March 15, 1974  
EFFECTIVE March 15, 1974

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## Section 1 - General Provisions

- 1.01 It is the purpose of this regulation to assure that the surface and ground water of the State of Delaware exhibits a quality consistent with established criteria. This regulation is but a single phase in a program which shall serve to effectively and reasonably manage the water resources of the State in order to provide for the health, safety, and welfare of the citizens of the State of Delaware.

## Section 2 - Definitions

As used in these regulations, the following terms shall have the meanings indicated below:

- 2.01 AEROBIC HOME TREATMENT PLANT: Means a receptacle which receives the discharge of sewage from a house sewer and is designed and constructed so as to permit aeration, sedimentation, chlorination and discharge of the liquid portion into a disposal area.
- 2.02 AGRICULTURAL WASTES: Means any waste material generated from any agricultural practice, including but not limited to, farming, irrigation, manure or fertilizer spreading, livestock and dairy operations.
- 2.03 AS BUILT PLANS: Means any set of engineering drawings delineating the specific permitted facility as actually installed.
- 2.04 AVERAGE DAILY LOADING: Means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.
- 2.05 BULK STORAGE FACILITY: Means any facility used for the express purpose of storage of 40,000 or more gallons of any hazardous material, petroleum product or liquid waste in bulk form.
- 2.06 BULK TRANSFER FACILITY: Means any facility used for the express purpose of transfer of 20,000 gallons per day or more of any hazardous material, petroleum product, or liquid waste to or from any carrier such as, but not limited to, ships, barges, trains or trucks.
- 2.07 CONSTRUCTION: Means any placement, assembly, or installation of facilities which may result in discharge to surface or groundwater.

- 2.18 LIQUID WASTE: Means any sewage, industrial waste or other wastes or any combination thereof which may potentially alter the chemical, physical, biological or radiological integrity of surface and/or groundwater from its natural state.
- 2.19 MAXIMUM INSTANTANEOUS CONCENTRATION: Means the concentration of a pollutant in terms of milligrams per liter which represents the value obtained from a grab sample of an effluent. The maximum instantaneous concentration shall be based on a review of the degree of fluctuation experienced in comparable systems. For purposes of compliance, the maximum instantaneous concentration shall be based on the actual analysis of the grab sample.
- 2.20 MANUAL OF OPERATION: Means a written document setting forth a step by step procedure to operate the treatment facility to meet effluent limitations.
- 2.21 MAXIMUM DAILY LOADING: Means the quantity of pollutant in terms of pounds per day which represents a value of one operating day. Maximum daily loadings shall be based on a review of the degree of fluctuation experienced in comparable systems. For purposes of compliance, the average daily flow for the operating day shall be utilized.
- 2.22 MUNICIPALITY: Means a political unit having corporate status and powers of self-government and includes any county government.
- 2.23 NUTRIENT REMOVAL: Means any method of treatment specifically designed to remove nutrients, including but not limited to phosphorus, nitrogen or carbon.
- 2.24 PERMIT: Means any official document issued by the Department granting the specific activity set forth in the document.
- 2.25 PERSON: Means any individual, partnership, corporation, association, institution, enterprise, municipality, commission, political subdivision or duly established entity.
- 2.26 PIPELINE: Means any pipe or system of pipes including but not limited to pump stations and other appurtenances utilized for the conveyance of any liquid, gas or solid, except as exempted by regulation.
- 2.27 POINT SOURCE: Means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

- 2.38 SECRETARY: Means the Secretary of the Department of Natural Resources and Environmental Control or his duly authorized designee.
- 2.39 SEWAGE: means water-carried human or animal wastes from septic tanks, water closets, residences, buildings, industrial establishments, or other places, together with such groundwater infiltration, subsurface water, admixture of industrial wastes or other wastes as may be present.
- 2.40 TERTIARY TREATMENT: Means any physical, biological and/or chemical method directed at removing a specified portion of the remaining pollutants after secondary treatment.
- 2.41 WATER POLLUTION: Means the man-made or man-induced alteration of the natural chemical, physical, biological and radiological integrity of water.
- 2.42 WATER QUALITY STANDARDS: Means Water Quality Standards duly adopted by the Department and approved by the Environmental Protection Agency.

Section 3 - Prohibition of Discharge

- 3.01 No person shall discharge any pollutant from a point source into surface or groundwater, directly or indirectly, except as authorized pursuant to a permit granted under Section 4, unless such discharge is specifically exempted from such permit requirement.
- 3.02 No person shall discharge any liquid waste on land or in any subsurface excavation except as authorized pursuant to a permit granted under Section 4, unless such discharge is specifically exempted from such permit requirement.
- 3.03 A violation of subsection 3.01 or subsection 3.02 of this section (or both) shall be punishable as provided by statute.
- 3.04 No permit pursuant to Section 4 shall be issued for the following:
- a. Any discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste; and
  - b. Any discharge of liquid wastes which the Secretary of the Army, acting through the Chief of Engineers, finds would substantially impair anchorage and navigation of any waters of the United States; and
  - c. Any discharge of liquid wastes which is in conflict with an areawide waste treatment management plan approved under the Federal Water Pollution Control Act, as amended; and

Part II - Discharges Subject to the Requirements of the National Pollutant  
Discharge Elimination System (NPDES)

Any person required to comply with the requirements of the NPDES program shall be subject to the additional requirements imposed under this section.

4.51 Permit Applications. Within ninety (90) days of the effective date of this regulation, persons subject to the NPDES requirements shall submit a NPDES application to the Department; unless a complete Refuse Act application is on file at the Department, in which case, no additional application need be submitted. In the event a Refuse Act application is determined to be insufficient, the applicant, upon notification by the Department, shall submit a complete NPDES application within sixty (60) days of the date of the notification. Any person wishing to commence discharges of pollutants shall submit a complete NPDES application to the Department not less than one hundred and eighty (180) days in advance of the date on which it is desired to commence the discharge of pollutants. The applicant shall, upon request by the Department, supply additional information to insure that the Refuse Act or the NPDES application is complete. The processing of an application shall not be completed until such time as the applicant has supplied the missing information. Applications for NPDES permits shall be signed as provided in Section 5.01(i) of this regulation.

4.52 Tentative Determinations. The Department shall formulate tentative staff determinations with respect to Refuse Act or NPDES applications in advance of public notice of the receipt of a permit application. The tentative staff determinations will include:

- a. A tentative determination to issue or deny an NPDES permit for the discharge described in the Refuse Act or NPDES application.
- b. If the tentative determination is to issue the permit, the following additional tentative determinations shall be made:
  1. The basis of proposed effluent limitations.
  2. Schedules of compliance, if appropriate.
  3. Special conditions, if applicable.

The tentative determinations and permit application shall be made available for public inspection.

range of the discharge in degrees Fahrenheit, and the average daily discharge in pounds per day of any pollutant subject to limitation.

3. The tentative determinations required by Section 4.52.
4. A brief citation, including a brief identification of the uses for which the receiving waters have been classified, of the water quality standards and effluent standards and limitations applicable to the proposed discharge.
5. A procedure for requesting a public hearing.

4.54 Notice to Other Government Agencies.

- a. At the time of issuance of Public Notice pursuant to Section 4.53 of this regulation, other States or interstate agencies whose waters may be affected by the issuance of a NPDES permit shall also be notified. Each affected State or interstate agency shall be afforded an opportunity to submit written recommendations to the Department which the Department may incorporate into the permit, if issued. Should the Department fail to incorporate recommendations into a permit, a written explanation shall be provided to the affected State or interstate agency.
- b. At the time of issuance of Public Notice pursuant to Section 4.53 of this regulation, the appropriate District Engineer of the Army Corps of Engineers shall also be notified.
- c. Notice shall also be provided to any other Federal, State, or local agency, or affected county, if requested.

4.55 Public Access to Information. Pursuant to 7 Del. C. §6014, applications, tentative determinations, and fact sheets shall be made available to the public as provided.

4.56 Public Notice of Public Hearings. In the event a public hearing is held pursuant to 7 Del. C. §6006 in regard to a NPDES application, the following procedures concerning public notice of the public hearing shall be followed by the Department:

- a. Notice shall be published in at least one newspaper of general circulation within the geographical area of the discharge.
- b. Notice shall be sent to all persons and government agencies which received a copy of the notice or the fact sheet for the NPDES application.

shall more than nine months elapse between interim dates. If the time set for completion of the interim requirement is more than nine months and is not readily divided into stages for completion, interim dates shall be specified for the submission of reports of progress towards completion of the interim requirement. For each NPDES permit schedule of compliance, interim dates and the final date for compliance shall, to the extent practicable, fall on the last day of the months of March, June, September and December. Either before or up to fourteen (14) days following each interim date and the final date of compliance the permittee shall provide the Department with written notice of the permittee's compliance or noncompliance with the interim or final requirement.

4.58 NPDES Permits for Publicly Owned Treatment Works. In addition to the requirements imposed in other sections of this regulation, a permittee for a publicly owned treatment works shall provide notice to the Department of the following:

- a. Any new introduction of pollutants into such treatment works from new sources as defined in Section 306 of the Federal Water Pollution Control Act, as amended.
- b. Any new introduction of pollutants into such treatment works from sources subject to NPDES permit requirements.
- c. Any substantial change in volume or character of pollutants being introduced into such treatment works at the time of issuance of the permit.

Such notice shall include information on (i) the quality and quantity of effluent to be introduced into such treatment works and (ii) any anticipated impact of such changes in the quantity or quality of effluent to be discharged from such publicly owned treatment works. The permittee at all times shall maintain in good working order and operate as efficiently as possible any facilities or systems of control installed by the permittee to achieve compliance with the terms and conditions of the permit.

4.59 Reissuance of NPDES Permits. Any permittee who wishes to continue to discharge after the expiration date of a NPDES permit must file for reissuance of the permit at least one hundred and eighty (180) days prior to its expiration. The duration of each issued or reissued NPDES permit shall have a fixed term not to exceed five (5) years.

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- b. The permit date; and
- c. The name and address of the permittee; and
- d. The activity permitted and its location; and
- e. The date of the application which resulted in the permit, along with the date and a description of each additional submission on which the permit is based; and
- f. The expiration date of the permit and a statement that upon expiration of a permit, a new permit may be issued by the Secretary, after notice and opportunity for public hearing, and upon condition that the discharge meets or will meet all applicable State and Federal Water Quality Standards, regulations and effluent limitations; and
- g. A specific list of requirements which may include:
  - 1. Effluent limitations; and
  - 2. Performance standards; and
  - 3. Load allocations; and
  - 4. Notification of and approval by the Department prior to introduction of a new pollutant not limited by an existing permit condition; and
  - 5. If the permit is for a discharge from a publicly owned treatment works, the permittee shall impose on any industrial user any applicable pretreatment requirements promulgated by the Department which are extant at the time of application; and
  - 6. Notification of intent to initiate operation at least ten (10) days in advance of start up, except for an individual septic tank system or aerobic home treatment plant; and
  - 7. Within ninety (90) days following completion of construction, the permittee shall submit an "as built" set of plans of the treatment facility bearing the signature and seal of a Professional Engineer to the Department; and



- m. A statement that any person who causes or contributes to the discharge of a pollutant into State waters, either in excess of any condition specified in any permit duly issued by the Department or in absence of specific permit condition shall report such an incident to the Department as required under 7 Del. C. §6028.
- n. A statement that the permittee shall permit the Secretary upon presentation of his credentials:
  - 1. To enter upon permittee's premises in which an effluent source is located or in which any records are required to be kept under terms and conditions of the permit;
  - 2. To have access to and copy any records required to be kept under terms and conditions of the permit;
  - 3. To inspect any monitoring equipment or method required in the permit;
  - 4. To sample any discharge of pollutants.
- o. A statement that the permittee at all times shall maintain and operate any facilities or systems of control installed by the permittee to achieve compliance with the terms and conditions of the permit.

Section 6 - Procedure for Obtaining a Permit

- 6.01 The proposed discharge described in any application must meet any applicable State and Federal Water Quality Standards and any applicable effluent limitation, performance standard (including waste treatment requirements in Sections 7, 8, and 9 of this regulation) or schedule of compliance established pursuant to any State law or regulation.
- 6.02 Any application for a permit shall be submitted on forms made available by the Department.
- 6.03 For any application for discharge in excess of 2,000 gpd, the applicant may be required to attend a predesign conference to obtain preliminary comments of the Department and discuss a schedule for submission of reports. Any reports submitted pursuant to Section 6.04 shall bear the seal and signature of a Professional Engineer.

Section 7 - Minimum Treatment Requirements for Sewage Prior to Discharge to a Surface Water

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- 7.01 No person shall cause or permit any discharge of liquid waste to the Delaware River, the Delaware Bay, or Atlantic Ocean except liquid waste which has received at least secondary treatment and disinfection.
- 7.02 No person shall cause or permit discharge of liquid waste to a lake or a pond or any tributary thereof, except liquid waste which has received at least secondary treatment, filtration, nutrient removal and disinfection.
- 7.03 No person shall cause or permit any discharge of liquid waste to the Little Assawoman Bay, including any tributary, Indian River Bay, including any tributary, or to Rehoboth Bay, including any tributary except liquid waste which has received at least secondary treatment, filtration, and disinfection.
- 7.04 No person shall cause or permit any discharge of liquid waste to a stream, tidal or non-tidal, except liquid waste which has received at least secondary treatment, filtration, and disinfection, but this subsection shall not govern discharge into the Delaware River, the Delaware Bay or the Atlantic Ocean, which shall be governed by paragraph 7.01 hereof. For existing facilities, filtration may not be required if the existing facility has demonstrated the ability to continuously meet secondary treatment levels.
- 7.05 In areas in which Water Quality Standards are frequently violated, the Department shall establish a zone containing point source discharges which significantly contribute to violation of Water Quality Standards. If after an evaluation by the Department it is determined that Water Quality Standards will not be achieved through the application of treatment requirements and effluent limitations contained in Section's 7 and 8, additional effluent limitations shall be uniformly imposed on all dischargers within the zone to assure compliance with Water Quality Standards.

Section 8 - Industrial Waste Effluent Limitations

- 8.01 General. Effluent limitations and treatment requirements imposed under this section are based upon criteria contained in the Water Quality Standards and upon the application of a practicable level of pollutant removal technology to industrial waste water discharges. At a minimum, industrial discharges shall be subject to effluent requirements reflecting a practicable level of pollutant removal technology. In the event that Water Quality Standards are not achieved through application of a practicable level of pollutant removal technology, additional effluent limitations and treatment requirements shall be imposed to assure compliance with Water Quality Standards.

- a. Waste water flows containing pollutants added by the discharger which are subject to limitation shall be segregated from flows not subject to limitation to the maximum practicable extent.
- b. Waste water flows containing pollutants added by the discharger shall be at least treated so as not to exceed the following limitations for the listed parameters:

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(1) BOD <sub>5</sub>	30 mg/l
(2) Suspended Solids	30 mg/l
(3) Cadmium	0.10 mg/l
(4) Chromium (total)	0.150 mg/l
(5) Lead	0.150 mg/l
(6) Mercury	0.005 mg/l
(7) Copper	0.50 mg/l
(8) Iron (total)	2.0 mg/l
(9) Nickel	1.0 mg/l
(10) Selenium	0.020 mg/l
(11) Silver	0.10 mg/l
(12) Zinc	1.0 mg/l
(13) Cyanide	0.050 mg/l
(14) Fluoride	3.0 mg/l
(15) Oil & Grease	10.0 mg/l
(16) Phenolics	1.0 mg/l

The concentration levels imposed shall be utilized to establish average daily loading limitations. Measurements to determine compliance with the above requirements shall be taken at a point after treatment as designated by the Department.

- c. Notwithstanding the provisions of subsection b. of this section, in situations in which pollutants are highly concentrated in wastewater flows as a result of efficient water-use conservation practice, and in which the effluent limitations listed in subsection b. cannot be achieved through the application of a practicable level of pollutant removal technology, the Department shall establish effluent limitations which reflect the application of a practicable level of pollutant removal technology. For the parameters of BOD<sub>5</sub> and Suspended Solids, the degree of removal reflecting an application of a practicable level of technology shall be at least 85% of the BOD<sub>5</sub> and Suspended Solids contained in the wastewater influent of the treatment system, except where effluent limitations are based on Water Quality Standards.

- 9.10 Hydrologic and soils investigations shall be based on test drilling and field determinations of infiltration rates, groundwater movement, properties of earth materials and background water quality under the site. Any geologic investigations submitted as part of an application shall bear the seal and signature of a Geologist registered in the State of Delaware.
- 9.11 A minimum of secondary treatment shall be required for all sewage and any waste containing sewage prior to land disposal.
- 9.12 Screening, filtration or other means of solids separation may be required in all cases where solids would be discharged to the land disposal area.
- 9.13 Land disposal of liquid waste which is toxic to vegetative cover or remains toxic in the environment, or is non-biodegradable or non-exchangeable with the soil materials is prohibited.
- 9.14 Irrigation methods other than spray irrigation may be considered on a case-by-case basis.

Part II - Subsurface Disposal of Liquid Wastes

- 9.51 The size of any proposed disposal field shall be dictated by the "Water Pollution Control Regulation #2 Governing the Installation and Operation of Septic Tank Sewage Disposal Systems" and "Guidelines for Septic Tank Systems".
- 9.52 For any proposed subsurface discharge of liquid waste not located in a short term (5 year) sewer service area, additional land must be available to accommodate a spare disposal field of equal capacity.
- 9.53 Density Considerations - Only those lot areas actually receiving discharges and adjoining roadways shall be considered in the determinations of the total discharge acreage. Only that area contained within a fifty (50) foot perimeter around the seepage beds will be considered in the determination of density. Further, only half of any public roadway may be considered. Any area within the fifty (50) foot perimeter containing buildings, impervious foundations or formations will not be considered as available acreage.
  - a. For any project consisting of individual water supplies and septic tank treatment, the maximum allowable density is 1,250 gallons per day per acre.
  - b. For any project consisting of central water supply and septic tank treatment, the maximum allowable density is 2,500 gallons per day per acre.

- 13.04 Transportation of organic or inorganic fertilizers.
- 13.05 Application of herbicides, pesticides, and plant growth regulators for agricultural or horticultural purposes.
- 13.06 Condensate from any cooling system used for air temperature control.
- 13.07 Backwash from a filter used for an individual dwelling swimming pool.
- 13.08 Steam trap blowdown from any stream tracing system.
- 13.09 The sewer connection for any single family or multi-family dwelling, office building, store or other commercial building which generates less than 2,000 gallons per day, and which will be connected to the sewer before use and for which sewer system a permit has been issued.
- 13.10 Plowing or cultivating for agricultural or horticultural purposes.
- 13.11 Irrigation practices utilizing uncontaminated surface or groundwater for agricultural or horticultural purposes.
- 13.12 Washing of motor vehicles, except commercial car washing operations.
- 13.13 Snow and ice removal.
- 13.14 Acid cleansing of masonry.
- 13.15 Movement of earth for building excavations, foundations or footings.
- 13.16 Regrading of earth unless otherwise regulated.
- 13.17 Potable water transmission lines and storage tanks.
- 13.18 Salting and sanding of roadways for the express purpose of snow and ice control.
- 13.19 Operation of any quarry, gravel pit, or borrow operation unless there may be a discharge, directly or indirectly, to surface or groundwater.
- 13.20 Any pipe or system of pipes, except those which convey liquid waste located wholly on the property of the owner where processing, manufacturing, commercial, or business operations occur.

Section 14 - Severability

- 14.01 If any part of this regulation, or the application of any part thereof, is held invalid or unconstitutional, the application of such part to other persons or circumstances and the remainder of this regulation shall not be affected thereby and shall be deemed valid and effective.